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Different grazing manner effects on ecological indicators of the typical steppe vegetation in Mongolia plateau

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Key words : grazing system , ecological indicators , typical steppe

Introduction Study on nomadic civilization grazing principle and modern technology , rotational grazing system are better than those with the continuous grazing in Mongolian plateau . Ecological indicators (the height , the cover degree and the importance value) are higher than those continuous grazing (Savory 1980) . In this study , we mainly selected Dong wu county typical steppe Inner Mongolia . As a result show that require grassland vegetation ecological indicators in typical steppe have a difference . Rotational grazing system have well impression about ecology protection , how to establish rational grazing and distribute system , Suggestions for further study are discussed .

Materials and methods Taking Mongolia plateau vegetation , mainly investigated places are Dong Wu town Inner Mongolia typical steppe ($45^{\circ}27'N$, $117^{\circ}04'E$) and Su He Bate province Mongolia typical steppe ($45^{\circ}44'N$, $115^{\circ}43'E$) . In this study , we mainly used herd family with starting point and line out three string , every line angle is 120° . We selected 3 to 5 target point , target point area is $1 \times 1 m^2$ and we determine vegetation ecological indicators in the target point . The data were analyzed using SPSS13 . 0 .

Results *Stipa krylovii* is mostly genus in the typical steppe , the following result is ecological indicators of *Stipa krylovii* steppe .

Table1 Comparing ecological indicators of *Stipa krylovii* typical steppe in two countries .

Ecological Indicators grazing system	height (cm)	coverage (%)	Important value
	average (Std . Deviation)	average (Std . Deviation)	average (Std . Deviation)
Mongolia (nomadic grazing)	9 . 0 (3 . 16) ^a	9 . 83 (6 . 68) ^a	50 . 62 (22 . 78) ^a
Inner Mongolia (consecutive grazing)	5 . 83 (1 . 47) ^b	3 . 76 (1 . 54) ^a	25 . 63 (18 . 14) ^a

Explain : different letters indicate significant differences at $P < 0 . 05$ level .

Conclusions The result show that Mongolia (nomadic grazing) *Stipa krylovii* higher than Inner Mongolia (consecutive grazing) . Across One-way ANOVA , vegetation height exist significantly difference ($P < 0 . 05$) , coverage and important value are no significant difference . We concluded that nomadic grazing Mongolia for vegetation resumption has better effect than consecutive grazing Inner Mongolia .

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